

## 03-030 Removal and insertion of steel balls for main oil galleries

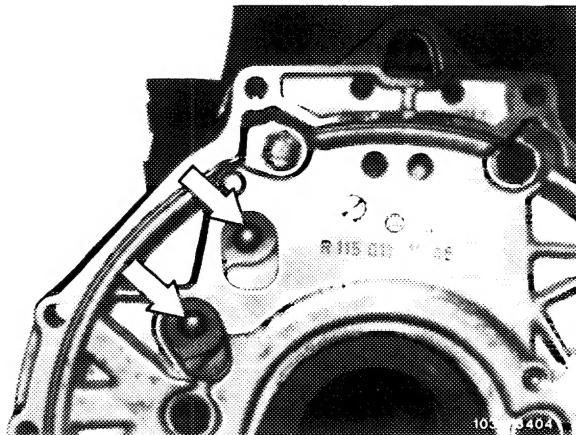
### Shop-made tool

Installer for steel balls

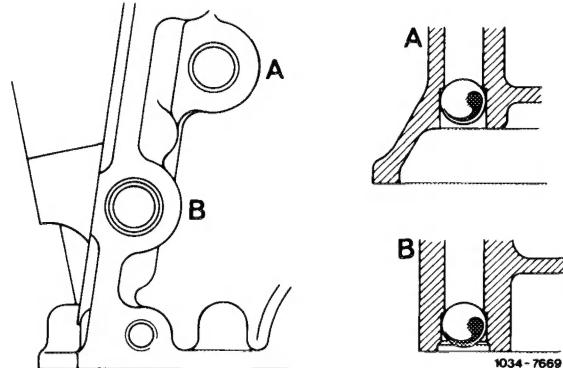
see illustration, item 9

### Note

Commencing at the end chassis Nos. listed below, the main oil galleries at the transmission end of the crank-case are closed by steel balls (17 mm dia.).



Type	End chassis No.
115.110	467392
115.115	351669
115.114	053677
115.117	131001
123.120	031870
123.123	013431
123.126	014348
123.130	021335



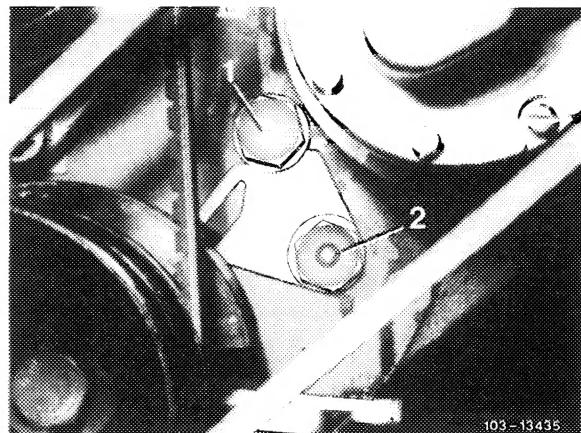
For engine reconditioning it is necessary to remove steel balls in order to clean main oil galleries.

Intact steel balls can be repeatedly used without any treatment of the ball seating.

Replace damaged steel balls.

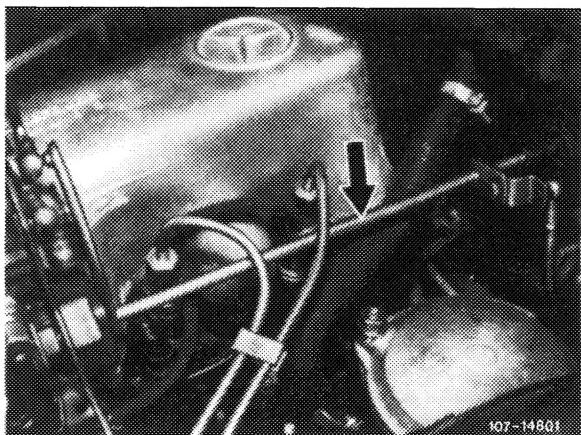
**Upper main oil gallery,  
removal of steel ball**

- 1 Remove transmission and flywheel (03–410).
- 2 Remove radiator (20–420).
- 3 Remove screw plug (1) and socket-head bolt beyond.
- 4 Knock out steel ball from front, using an approx. 850 mm long steel rod (13 mm dia.).

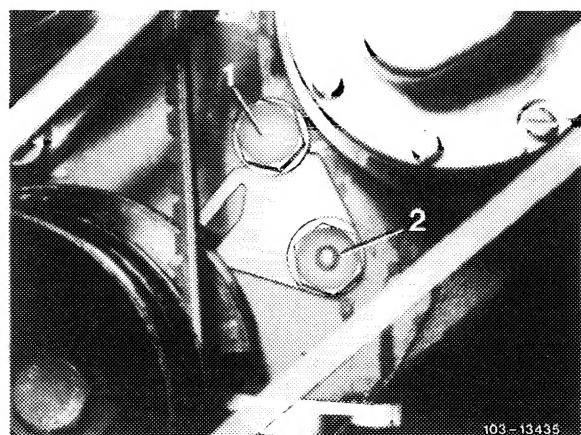


**Lower main oil gallery,  
removal of steel ball**

- 1 Remove transmission and flywheel (03–410).
- 2 Remove radiator (20–420).
- 3 On engine model 617, also remove vibration damper (03–340).
- 4 Remove longitudinal control spindle (arrow).



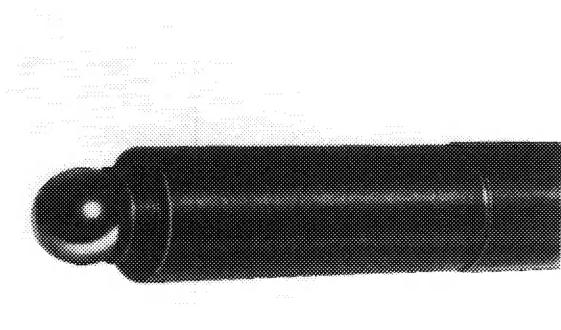
- 5 Remove screw plug (2).
- 6 Remove lower part of oil pan as well as oil pump (18–210).
- 7 Remove inner slide rail (05–340).
- 8 Tilt engine slightly to rear.



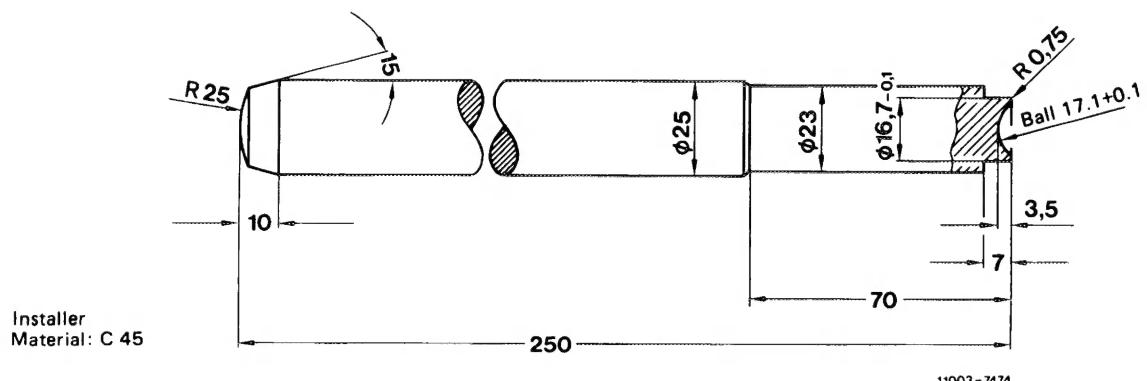
- 9 Drive out steel ball from front, using an approx. 850 mm long steel rod (13 mm dia.).

**Upper and lower main oil galleries,  
insertion of steel balls**

10 Thoroughly clean hole for insertion of steel balls.



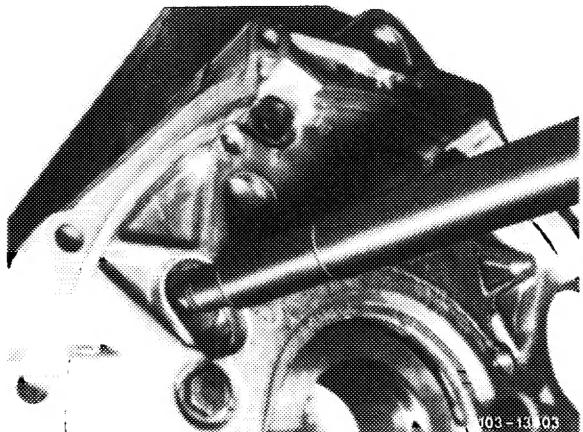
103-13 405



10 Position steel ball with drift and drive home to shoulder on installer.

11 Fit all parts removed.

12 Warm up engine and check for leakage.



103-13 103